

08/765244

KAT 09-16-99

Set	Items	Description
?s s	mitochondrial()	ornithine()transcarbamyase
	0	S MITOCHONDRIAL
	46055	ORNITHINE
	5267	TRANSCARBAMYLASE
S1	0	S MITOCHONDRIAL()ORNITHINE()TRANSCARBAMYLASE
?s ornithine()	transcarbamyase?	
	46055	ORNITHINE
	5295	TRANSCARBAMYLASE?
S2	3339	ORNITHINE()TRANSCARBAMYLASE?
? s s2()	mitochond?	
	3339	S2
	330099	MITOCHOND?
S3	7	S2()MITOCHOND?
? s s2 and	mitochond?	
	3339	S2
	330099	MITOCHOND?
S4	1049	S2 AND MITOCHOND?
?s s4 and (peptide? or sequence? or signal?)		
Processing		
Processed 10 of 19 files ...		
Completed processing all files		
	1049	S4
	1020184	PEPTIDE?
	1661745	SEQUENCE?
	1451906	SIGNAL?
S5	453	S4 AND (PEPTIDE? OR SEQUENCE? OR SIGNAL?)
?s s4 and signal(peptide? or sequence?)		
	1049	S4
	0	SIGNAL(PEPTIDE?
	0	SEQUENCE?)
S6	0	S4 AND SIGNAL(PEPTIDE? OR SEQUENCE?)
?s s4 and signal()(peptide? or sequence?)		
Processed 10 of 19 files ...		
Processing		
Completed processing all files		
	1049	S4
	1099318	SIGNAL
	1020184	PEPTIDE?
	1661745	SEQUENCE?
	43394	SIGNAL(W)(PEPTIDE? OR SEQUENCE?)
S7	108	S4 AND SIGNAL()(PEPTIDE? OR SEQUENCE?)
?s7 and human		
Processing		
Processed 10 of 19 files ...		
Processing		
Completed processing all files		
	3195942	7
	10223094	HUMAN
S8	707639	7 AND HUMAN
?s s7 and human		
	108	S7
	10223094	HUMAN
S9	17	S7 AND HUMAN
?t s9/3,k/all		

9/3,K/1 (Item 1 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
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07927467 BIOSIS NO.: 000093015865

**ROLE OF POLYAMINES IN THE TRANSPORT IN-VITRO OF THE PRECURSOR OF ORNITHINE
 TRANSCARBAMYLASE**

AUTHOR: GONZALEZ-BOSCH C; MARCOTE M J; HERNANDEZ-YAGO J
 AUTHOR ADDRESS: INST. INVESTIGACIONES CITOLOGICAS CAJA AHORROS VALENCIA,

AMADEO DE SABOYA 4, 46010 VALENCIA, SPAIN.

JOURNAL: BIOCHEM J 279 (3). 1991. 815-820.
FULL JOURNAL NAME: Biochemical Journal
CODEN: BIJOA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

**ROLE OF POLYAMINES IN THE TRANSPORT IN-VITRO OF THE PRECURSOR OF ORNITHINE
TRANSCARBAMYLASE**

ABSTRACT: Polyamines induce the transport in vitro of the rat liver precursor of **ornithine transcarbamylase** (pOTC) into isolated rat liver **mitochondria**. The accumulation of this precursor at the liver of binding to the **mitochondrial** surface has allowed us to establish that polyamines are involved in the interaction of the precursor with the **mitochondrial** surface. Transport of a chimeric protein having the **signal sequence** of pOTC fused to a fragment of the cytosolic protein **human arginosuccinate lyase** was also induced by polyamines. The sensitivity of the pOTC synthesized in vitro...

...may play a role in modulating the folding of precursors to favor their binding to **mitochondria**.

DESCRIPTORS: RAT ARGINOSUCCINATE LYASE PROTEINASE LIVER **MITOCHONDRIA**
SIGNAL SEQUENCE

9/3,K/2 (Item 1 from file: 34)
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

02277710 Genuine Article#: KP884 No. References: 42

Title: **THE PRESEQUENCE OF RAT-LIVER ALDEHYDE DEHYDROGENASE REQUIRES THE PRESENCE OF AN ALPHA-HELIX AT ITS N-TERMINAL REGION WHICH IS STABILIZED BY THE HELIX AT ITS C-TERMINI**

Author(s): WANG Y; WEINER H

Corporate Source: PURDUE UNIV, DEPT BIOCHEM, 1153 BIOCHEM BLDG/W
LAFAYETTE//IN/47907; PURDUE UNIV, DEPT BIOCHEM, 1153 BIOCHEM BLDG/W
LAFAYETTE//IN/47907

Journal: JOURNAL OF BIOLOGICAL CHEMISTRY, 1993, V268, N7 (MAR 5), P
4759-4765

ISSN: 0021-9258

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Abstract: Previous nuclear magnetic resonance data showed that the conformation of the **signal peptide** of rat liver **mitochondrial** aldehyde dehydrogenase in a micelle environment contained a N-helix and a C-helix which...

...C-terminal random coil of the oxidase's presequence. Circular dichroism studies on the synthesized **signal peptides** indicated that a helix in the C-segment of aldehyde dehydrogenase **signal peptide** was needed to stabilize the N-helix. It is concluded that a stable helix in the N-terminal region is necessary for a functional **mitochondrial** presequence. This helix could be obtained from its own sequence, or from the interaction with...

...Identifiers--IMPORTED **MITOCHONDRIAL** PROTEIN; OUTER-MEMBRANE PROTEIN; 12 AMINO-ACIDS; LEADER PEPTIDE; **SIGNAL PEPTIDE**; **ORNITHINE TRANSCARBAMYLASE**; TARGETING SEQUENCES; PRE-SEQUENCE; YEAST; PRECURSOR
Research Fronts: 91-3902 002 (VIBRATIONAL CIRCULAR-DICHROISM; SYNTHETIC AMPHIPHILIC **SIGNAL PEPTIDES** IN LIPID MODEL MEMBRANES; PROTEIN SECONDARY STRUCTURE; CONFORMATIONAL STABILITY)
91-0306 001 (LAC REPRESSOR IN...

...DOMAINS; STRUCTURAL ELEMENTS)

91-0448 001 (C-JUN AP-1 ACTIVITY; FOS PROTEINS; TRANSCRIPTIONAL

ACTIVATION; **HUMAN** MYELOID CELLS; MOUSE FIBROBLASTS; IMMEDIATE-EARLY
GENES; TUMOR PROMOTER
91-3106 001 (IDENTIFICATION OF A...

...GDP/GTP EXCHANGE PROTEIN; EXPRESSION OF MESSENGER-RNA)
91-6980 001 (CHLOROPLAST IMPORTED PROTEINS; YEAST **MITOCHONDRIAL** ATP
SYNTHASE; MOLECULAR-CLONING OF CDNA; THYLAKOID LUMEN; DEDUCED SEQUENCE;
NUCLEAR GENE)

9/3,K/3 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

01321230 Genuine Article#: GP155 No. References: 36
**Title: ROLE OF POLYAMINES IN THE TRANSPORT INVITRO OF THE PRECURSOR OF
ORNITHINE TRANSCARBAMYLASE**
Author(s): GONZALEZBOSCH C; MARCOTE MJ; HERNANDEZYAGO J
Corporate Source: CSIC,INST INVEST CITOL CAJA AHORROS VALENCIA, AMADEO
SABOYA 4/E-46010 VALENCIA//SPAIN/; CSIC,INST INVEST CITOL CAJA AHORROS
VALENCIA, AMADEO SABOYA 4/E-46010 VALENCIA//SPAIN/
Journal: BIOCHEMICAL JOURNAL, 1991, V279, NOV, P815-820
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

**Title: ROLE OF POLYAMINES IN THE TRANSPORT INVITRO OF THE PRECURSOR OF
ORNITHINE TRANSCARBAMYLASE**
Abstract: Polyamines induce the transport in vitro of the rat liver
precursor of **ornithine transcarbamylyase** (pOTC) into isolated rat
liver **mitochondria** . The accumulation of this precursor at the level
of binding to the **mitochondrial** surface has allowed us to establish
that polyamines are involved in the interaction of the precursor with
the **mitochondrial** surface. Transport of a chimeric protein having
the **signal sequence** of pOTC fused to a fragment of the cytosolic
protein **human** arginosuccinate lyase was also induced by polyamines.
The sensitivity of the pOTC synthesized in vitro...
...may play a role in modulating the folding of precursors to favour their
binding to **mitochondria** .
...Identifiers--RAT-LIVER **MITOCHONDRIA** ; PROTEIN IMPORT;
CARBAMOYLTRANSFERASE PRECURSOR; MEMBRANE; TRANSLOCATION; STIMULATE;
FRACTION; RNA

9/3,K/4 (Item 1 from file: 76)
DIALOG(R)File 76:Life Sciences Collection
(c) 1999 Cambridge Sci Abs. All rts. reserv.

01569137 2701808
**Role of polyamines in the transport in vitro of the precursor of ornithine
transcarbamylyase.**
Gonzalez Bosch, C.; Marcote, M.J.; Hernandez Yago, J.
Inst. Invest. Citol. Caja Ahorros Valencia (Cent. Asociado del CSIC),
Amadeo Saboya 4, 46010-Valencia, Spain
BIOCHEM. J. vol. 279, no. 3, pp. 815-820 (1991.)
DOCUMENT TYPE: Journal article LANGUAGE: ENGLISH
SUBFILE: Biochemistry Abstracts Part 3: Amino Acids, Peptides and Proteins

**Role of polyamines in the transport in vitro of the precursor of ornithine
transcarbamylyase.**

Polyamines induce the transport in vitro of the rat liver precursor of
ornithine transcarbamylyase (pOTC) into isolated rat liver **mitochondria**
. The accumulation of this precursor at the level of binding to the
mitochondrial surface has allowed us to establish that polyamines are
involved in the interaction of the precursor with the **mitochondrial**
surface. Transport of a chimeric protein having the **signal sequence** of
pOTC fused to a fragment of the cytosolic protein **human** arginosuccinate
lyase was also induced by polyamines. The sensitivity of the pOTC

synthesized in vitro...

...may play a role in modulating the folding of precursors to favour their binding to **mitochondria**.

9/3,K/5 (Item 1 from file: 94)

DIALOG(R) File 94:JICST-Eplus

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03396663 JICST ACCESSION NUMBER: 97A0703650 FILE SEGMENT: JICST-E
**Pathological elucidation of oxygen stress induced cell death in cell of
mitochondrial disease and control of cell death by selective
expression of antioxidant enzyme gene in mitochondrion.**

YONEDA MAKOTO (1)

(1) Nagoya Univ., Sch. of Med.

Mochida Kinen Zaidan Kenkyu Seika Hokokushu, 1997, VOL.13, PAGE.46-50,
FIG.3, TBL.1, REF.8

JOURNAL NUMBER: X0967AAR

UNIVERSAL DECIMAL CLASSIFICATION: 616.8-09 616.7-09

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

**Pathological elucidation of oxygen stress induced cell death in cell of
mitochondrial disease and control of cell death by selective
expression of antioxidant enzyme gene in mitochondrion.**

...ABSTRACT: to introduce mtDNA varied by cell fusion into a special cell
system (I) which lacked **mitochondrin** (mt) DNA. The cell death appeared
in high-frequent by high-dense oxygen load, when...

...recognized, and the storage of mtDNA mutation seemed to form a vicious
circle system. The **signal peptide** of **Ornithine -transcarbamylase**
(enzyme of mt) has shifted the gene appeared in a cytoplasm into not
selectively.

...DESCRIPTORS: **mitochondrial** gene...

...human (primates...

...mitochondria ; ...

...mitochondrial encephalomyopathy

...BROADER DESCRIPTORS: **mitochondrial** disease

9/3,K/6 (Item 1 from file: 144)

DIALOG(R) File 144:Pascal

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09870195 PASCAL No.: 92-0072685

**Role of polyamines in the transport in vitro of the precursor of
ornithine transcarbamylase**

GONZALEZ-BOSCH C; MARCOTE M J; HERNANDEZ-YAGO J

CSIC, Caja Ahorros Valencia, inst. investigaciones citologicas, Valencia
46019, Spain

Journal: Biochemical journal : (London. 1984), 1991, 279 (p.3) 815-820

Language: English Summary Language: English

**Role of polyamines in the transport in vitro of the precursor of
ornithine transcarbamylase**

Polyamines induce the transport in vitro of the rat liver precursor of
ornithine transcarbamylase (pOTC) into isolated rat liver **mitochondria**.
The accumulation of this precursor at the level of binding to the
mitochondrial surface has allowed us to establish that polyamines are
involved in the interaction of the precursor with the **mitochondrial**
surface. Transport of a chimeric protein having the **signal sequence** of
pOTC fused to a fragment of the cytosolic protein **human** arginosuccinate

lyase was also induced by polyamines

English Descriptors: Polyamine; Ornithine carbamoyltransferase; Biological transport; Radiolabelling; HPLC chromatography; In vitro; **Mitochondria** ; Liver; Rat

French Descriptors: Polyamine; Ornithine carbamoyltransferase; Transport biologique; Marquage radioisotopique; Chromatographie HPLC; In vitro; **Mitochondrie** ; Foie; Rat

9/3,K/7 (Item 1 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

08990780 Genuine Article#: P8521 No. References: 274

Title: MOLECULAR-BIOLOGY OF STEROID-HORMONE SYNTHESIS

Author(s): MILLER WL

Corporate Source: UNIV CALIF SAN FRANCISCO, DEPT PEDIAT, ROOM 677S/SAN FRANCISCO//CA/94143; UNIV CALIF SAN FRANCISCO, METAB RES UNIT/SAN FRANCISCO//CA/94143

Journal: ENDOCRINE REVIEWS, 1988, V9, N3, P295-318

Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

...Research Fronts: CELLULAR ONCOGENES; CULTURED RAT-THYROID CELLS; C-FOS ONCOGENE; N-MYC GENE)

86-1974 001 (ORNITHINE **TRANSCARBAMYLASE** DEFICIENCY; **MITOCHONDRIAL** IMPORT; TARGETING PROTEINS; MAMMALIAN **MITOCHONDRIA** INVITRO; MOLECULAR-CLONING OF CDNA)

86-2158 001 (2-MU-M CIRCLE OF SACCHAROMYCES-CEREVISIAE; SINGLE YEAST GENE; MITOTIC CHROMOSOME TRANSMISSION; HOMOLOGOUS RECOMBINATION)

86-2714 001 (PROTEIN TRANSLOCATION; **SIGNAL SEQUENCE** ; ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-3397 001 (POLYCYSTIC OVARIAN DISEASE; 5-ALPHA-REDUCTASE...

...INSENSITIVITY; IDIOPATHIC HIRSUTISM; ANDROSTANEDIOL GLUCURONIDE)

86-7753 001 (AROMATASE INHIBITORS; ESTROGEN BIOSYNTHESIS; AROMATASE-ACTIVITY IN **HUMAN** ENDOMETRIAL STROMAL CELLS)

9/3,K/8 (Item 2 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

08149472 Genuine Article#: H7601 No. References: 29

Title: IMPORT AND PROCESSING OF HUMAN ORNITHINE TRANSCARBAMOYLASE PRECURSOR BY MITOCHONDRIA FROM SACCHAROMYCES-CEREVISIAE

Author(s): CHENG MY; POLLOCK RA; HENDRICK JP; HORWICH AL

Corporate Source: YALE UNIV, SCH MED, DEPT HUMAN GENET, 333 CEDAR ST, POB 3333/NEW HAVEN//CT/06510

Journal: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 1987, V84, N12, P4063-4067

Language: ENGLISH Document Type: ARTICLE

Title: IMPORT AND PROCESSING OF HUMAN ORNITHINE TRANSCARBAMOYLASE PRECURSOR BY MITOCHONDRIA FROM SACCHAROMYCES-CEREVISIAE

Research Fronts: 86-1974 002 (ORNITHINE **TRANSCARBAMYLASE** DEFICIENCY; **MITOCHONDRIAL** IMPORT; TARGETING PROTEINS; MAMMALIAN **MITOCHONDRIA** INVITRO; MOLECULAR-CLONING OF CDNA)

86-2158 001 (2-MU-M CIRCLE OF SACCHAROMYCES-CEREVISIAE; SINGLE YEAST GENE; MITOTIC CHROMOSOME TRANSMISSION; HOMOLOGOUS RECOMBINATION)

86-2714 001 (PROTEIN TRANSLOCATION; **SIGNAL SEQUENCE** ; ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-6423 001 (PARVALBUMIN EXPRESSION IN MAMMALIAN SKELETAL-MUSCLE...

9/3,K/9 (Item 3 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

08129872 Genuine Article#: H5980 No. References: 16

**Title: EVIDENCE FOR A SIGNAL PEPTIDE AT THE AMINO-TERMINAL END OF
HUMAN MITOCHONDRIAL ALDEHYDE DEHYDROGENASE**

Author(s): BRAUN T; BOBER E; SINGH S; AGARWAL DP; GOEDDE HW

Corporate Source: UNIV HAMBURG, INST HUMAN GENET, BUTENFELD 32/D-2000 HAMBURG
54//FED REP GER/

Journal: FEBS LETTERS, 1987, V215, N2, P233-236

Language: ENGLISH Document Type: ARTICLE

**Title: EVIDENCE FOR A SIGNAL PEPTIDE AT THE AMINO-TERMINAL END OF
HUMAN MITOCHONDRIAL ALDEHYDE DEHYDROGENASE**

...Research Fronts: OF NEWCASTLE-DISEASE VIRUS; NUCLEOTIDE-SEQUENCE
ANALYSIS; TRANSCRIPTION OF GENES; CDNA CLONE)

86-1974 001 (ORNITHINE TRANSAMINASE DEFICIENCY; MITOCHONDRIAL
IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
MOLECULAR-CLONING OF CDNA)

86-5975 001 (ALDEHYDE DEHYDROGENASE; ALCOHOL METABOLISM; EFFECT OF
ETHANOL)

9/3,K/10 (Item 4 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

07628212 Genuine Article#: E6679 No. References: 237

**Title: USING RECOMBINANT DNA TECHNIQUES TO STUDY PROTEIN TARGETING IN THE
EUKARYOTIC CELL**

Author(s): GAROFF H

Corporate Source: EUROPEAN MOLEC BIOL LAB, POSTFACH 102209/D-6900
HEIDELBERG//FED REP GER/

Journal: ANNUAL REVIEW OF CELL BIOLOGY, 1985, V1, P403-445

Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

Research Fronts: 86-2714 006 (PROTEIN TRANSLOCATION; **SIGNAL SEQUENCE** ;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-0127 004 (MURINE HEMATOPOIETIC PROGENITOR CELLS FOLLOWING RETROVIRAL
TRANSFER; RETROVIRUS VECTORS; EXPRESSION OF **HUMAN**
ADENOSINE-DEAMINASE)

86-1674 002 (TRANSCRIPTIONAL ENHANCER; VIRAL REGULATORY ELEMENTS;
ADENOVIRUS E1A GENE; REGULATION OF...

...MEDIATED ENDOCYTOSIS; INTRACELLULAR PH IN LIGAND INTERNALIZATION;
INFLUENZA-VIRUS HEMAGGLUTININ; ENDOCYTIC PATHWAY)

86-1974 002 (ORNITHINE TRANSAMINASE DEFICIENCY; MITOCHONDRIAL
IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
MOLECULAR-CLONING OF CDNA)

86-6970 002 (SV40 LARGE T-ANTIGEN; NUCLEAR LOCATION SIGNAL...

...DENSITY LIPOPROTEIN RECEPTOR; NATIVE LIPOPROTEINS; FAMILIAL
HYPERCHOLESTEROLEMIA; MOUSE MACROPHAGES; PATHOGENESIS OF
ATHEROSCLEROSIS)

86-1347 001 (**HUMAN** MAJOR HISTOCOMPATIBILITY COMPLEX; HLA CLASS-II
ANTIGENS; DNA RESTRICTION FRAGMENT LENGTH POLYMORPHISMS;
INSULIN-DEPENDENT DIABETES...

...IN MAMMALIAN-CELLS; SV40 MUTANTS)

86-7866 001 (MOUSE MAMMARY-TUMOR CELLS; DNA TRANSFECTION; TRANSFECTED
HUMAN -FIBROBLASTS; VIRAL VECTORS; ENHANCER FUNCTION; SINGLE PLASMID;
GENETIC COMPLEMENTATION)

86-8059 001 (**SIGNAL SEQUENCE** ; PROTEIN EXPORT; PERTUSSIS TOXIN GENE;
HERPES-SIMPLEX VIRUS TYPE-1)

9/3,K/11 (Item 5 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

07628208 Genuine Article#: E6679 No. References: 349

Title: CELL-SURFACE POLARITY IN EPITHELIA

Author(s): SIMONS K; FULLER SD

Corporate Source: EUROPEAN MOLEC BIOL LAB,POSTFACH 102209/D-6900
HEIDELBERG//FED REP GER/

Journal: ANNUAL REVIEW OF CELL BIOLOGY, 1985, V1, P243-288

Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

...Research Fronts: INTRACELLULAR PH IN LIGAND INTERNALIZATION;
INFLUENZA-VIRUS HEMAGGLUTININ; ENDOCYTIC PATHWAY)

86-2714 004 (PROTEIN TRANSLOCATION; **SIGNAL SEQUENCE** ;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-3897 003 (TIGHT JUNCTIONS; MDCK CELLS; CULTURED KIDNEY...

...001 (ASIALOGLYCOPROTEIN RECEPTOR; RAT ALVEOLAR MACROPHAGE LECTIN;
RECEPTOR-MEDIATED ENDOCYTOSIS; HEPATIC LECTINS)

86-1974 001 (**ORNITHINE TRANSCARBAMYLASE** DEFICIENCY; **MITOCHONDRIAL**
IMPORT; TARGETING PROTEINS; MAMMALIAN **MITOCHONDRIA** INVITRO;
MOLECULAR-CLONING OF CDNA)

86-2433 001 (ULTRASTRUCTURE OF THE FULL-TERM SHARK YOLK...

...TRANSFER PROTEINS; REVERSED MICELLES; MEMBRANE FLUIDITY; LIPID
DEPENDENCE)

86-6160 001 (FIBRONECTIN RECEPTOR FUNCTION; ADULT **HUMAN** VASCULAR
ENDOTHELIAL-CELL ATTACHMENT; GINGIVAL FIBROBLASTS; CYTOSKELETAL
REORGANIZATION; FIBROBLAST ADHESION)

86-6485 001 (BACTERIORHODOPSIN PHOTOCYCLE...

9/3,K/12 (Item 6 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci

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07473021 Genuine Article#: D6641 No. References: 44

**Title: DEMONSTRATION OF POST-TRANSLATIONAL SECRETION OF HUMAN
PLACENTAL-LACTOGEN BY A MAMMALIAN INVITRO TRANSLATION SYSTEM**

Author(s): CAULFIELD MP; DUONG LT; ROSENBLATT M

Corporate Source: MERCK SHARP & DOHME RES LABS,PARATHYROID HORMONE
LAB,W26-208/W POINT//PA/19486

Journal: JOURNAL OF BIOLOGICAL CHEMISTRY, 1986, V261, N24, P953-956

Language: ENGLISH Document Type: NOTE

**Title: DEMONSTRATION OF POST-TRANSLATIONAL SECRETION OF HUMAN
PLACENTAL-LACTOGEN BY A MAMMALIAN INVITRO TRANSLATION SYSTEM**

Research Fronts: 86-2714 006 (PROTEIN TRANSLOCATION; **SIGNAL SEQUENCE** ;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)

86-1974 002 (**ORNITHINE TRANSCARBAMYLASE** DEFICIENCY; **MITOCHONDRIAL**
IMPORT; TARGETING PROTEINS; MAMMALIAN **MITOCHONDRIA** INVITRO;
MOLECULAR-CLONING OF CDNA)

86-1382 001 (HEMAGGLUTININ NEURAMINIDASE GENE OF NEWCASTLE-DISEASE
VIRUS...

9/3,K/13 (Item 7 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci

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07416657 Genuine Article#: D2004 No. References: 278

Title: EXTRALYSOSOMAL PROTEIN-DEGRADATION

Author(s): PONTREMOLI S; MELLONI E

Corporate Source: UNIV GENOA,INST BIOL CHEM/I-16132 GENOA//ITALY/

Journal: ANNUAL REVIEW OF BIOCHEMISTRY, 1986, V55, P455-481

Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

...Research Fronts: IN THE RAT HYPOTHALAMUS; PROENKEPHALIN-DERIVED

PEPTIDES; PROENKEPHALIN GENE; LOCALIZATION OF NEUROPEPTIDES)
 86-1974 003 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL
 IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
 MOLECULAR-CLONING OF CDNA)
 86-2714 002 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE ;
 ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)
 86-6777 002 (PROTEIN KINASE-C; PHOSPHOLIPID-DEPENDENT PROTEIN...

...4899 001 (PHORBOL ESTER ACTIVATION OF PROTEIN KINASE-C; CYTOSOLIC FREE
 CALCIUM; PHOSPHOINOSITIDE TURNOVER IN HUMAN -NEUTROPHILS;
 PHORBOL-MYRISTATE ACETATE STIMULATION)
 86-6283 001 (CYTOSOLIC FREE CALCIUM; GRANULE RELEASE IN HUMAN
 -PLATELETS; CYTOPLASMIC IONIZED CALCIUM-CONCENTRATION IN PLATELETS;
 PLATELET ACTIVATION)
 86-7877 001 (SMALL SUBUNIT OF...

9/3,K/14 (Item 8 from file: 434)
 DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
 (c) 1998 Inst for Sci Info. All rts. reserv.

07401440 Genuine Article#: D1613 No. References: 159
Title: MOLECULAR AND CELL BIOLOGY OF LIPOPROTEIN BIOSYNTHESIS
 Author(s): DRISCOLL DM; GETZ GS
 Corporate Source: IMPERIAL CANC RES FUND/POTTERS BAR EN6 3LD/HERTS/ENGLAND/
 ; UNIV CHICAGO,DEPT PATHOL/CHICAGO//IL/60637; UNIV CHICAGO,DEPT BIOCHEM
 & MOLEC BIOL/CHICAGO//IL/60637; UNIV CHICAGO,DEPT MED/CHICAGO//IL/60637
 Journal: METHODS IN ENZYMOLOGY, 1986, V128, P41-70
 Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY

...Research Fronts: IN THE 5'-FLANKING REGION; HISTONE H-1)
 86-4041 004 (APOLIPOPROTEIN GENES; DNA POLYMORPHISM; HUMAN -LIVER
 FATTY-ACID BINDING-PROTEIN GENE)
 86-1382 003 (HEMAGGLUTININ NEURAMINIDASE GENE OF NEWCASTLE-DISEASE...

...SMALL NUCLEAR RNAS; CLEAVAGE AT THE 5' SPLICE SITE)
 86-6419 002 (APOLIPOPROTEIN-B OF HUMAN -PLASMA LOW-DENSITY
 LIPOPROTEINS; APOLIPOPROTEIN B-100; LIPOPROTEIN METABOLISM; AMINO-ACID
 SEQUENCE OF HUMAN APOLIPOPROTEIN-B-100)
 86-0721 001 (CALCITONIN GENE-RELATED PEPTIDE; RAT CENTRAL
 NERVOUS-SYSTEM; SUBSTANCE...
 ...MELANOGASTER; CHICKEN MYOSIN HEAVY-CHAIN FAMILY; TISSUE-SPECIFIC
 EXPRESSION; MESSENGER-RNA PRECURSORS)
 86-1974 001 (ORNITHINE TRANSCARBAMYLASE DEFICIENCY; MITOCHONDRIAL
 IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
 MOLECULAR-CLONING OF CDNA)
 86-2714 001 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE ;
 ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)
 86-3811 001 (SITE-DIRECTED MUTAGENESIS; PROTEIN ENGINEERING OF...

9/3,K/15 (Item 9 from file: 434)
 DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
 (c) 1998 Inst for Sci Info. All rts. reserv.

07152780 Genuine Article#: A4261 No. References: 56
**Title: MOLECULAR-CLONING OF HUMAN ORNITHINE AMINOTRANSFERASE
 MESSENGER-RNA**
 Author(s): INANA G; TOTSUKA S; REDMOND M; DOUGHERTY T; NAGLE J; SHIONO T;
 OHURA T; KOMINAMI E; KATUNUMA N
 Corporate Source: NEI,OPHTHALM PATHOL LAB/BETHESDA//MD/20892; NEI,VIS RES
 LAB/BETHESDA//MD/20892; UNIV TOKUSHIMA,SCH MED/TOKUSHIMA 770//JAPAN/;
 GENEX CORP,DEPT BIOCHEM GENET/GAITHERSBURG//MD/20877
 Journal: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED
 STATES OF AMERICA, 1986, V83, N5, P1203-1207
 Language: ENGLISH Document Type: ARTICLE

**Title: MOLECULAR-CLONING OF HUMAN ORNITHINE AMINOTRANSFERASE
MESSENGER-RNA**

...Research Fronts: OF NEWCASTLE-DISEASE VIRUS; NUCLEOTIDE-SEQUENCE
ANALYSIS; TRANSCRIPTION OF GENES; CDNA CLONE)
86-1974 002 (ORNITHINE TRANSACETYLASE DEFICIENCY; MITOCHONDRIAL
IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
MOLECULAR-CLONING OF CDNA)
86-6535 002 (PARTIAL AMINO-ACID SEQUENCE; BOVINE MITOCHONDRIAL
F1-ATPASE; EPIDERMAL GROWTH-FACTOR; GUINEA-PIG COPEPTIN;
PROTEIN-CHEMICAL IDENTIFICATION; SINGLE GENE)
86-8517 002 (CDNA SEQUENCE; GENES FOR THE PROTEIN ANTIGENS;
MOLECULAR-CLONING OF HUMAN ORNITHINE AMINOTRANSFERASE MESSENGER-RNA)
86-2283 001 (PRE-MESSENGER RNA SPLICING INVITRO; SMALL NUCLEAR RNAS;
CLEAVAGE AT THE 5' SPICE SITE)
86-2714 001 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE ;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)
86-3022 001 (CIRCUMSPOROZOITE PROTEIN OF THE HUMAN MALARIA PARASITE
PLASMODIUM-FALCIPARUM; POTENTIAL VACCINE ANTIGENS; ANTIGEN PRESENT IN
ALL BLOOD STAGES)

9/3,K/16 (Item 10 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

07150735 Genuine Article#: A3971 No. References: 56

**Title: SECRETION IN YEAST - RECONSTITUTION OF THE TRANSLOCATION AND
GLYCOSYLATION OF ALPHA-FACTOR AND INVERTASE IN A HOMOLOGOUS CELL-FREE
SYSTEM**

Author(s): ROTHBLATT JA; MEYER DI

Corporate Source: EUROPEAN MOLEC BIOL LAB, CELL BIOL PROGRAM/D-6900
HEIDELBERG//FED REP GER/

Journal: CELL, 1986, V44, N4, P619-628

Language: ENGLISH Document Type: ARTICLE

Research Fronts: 86-2714 003 (PROTEIN TRANSLOCATION; SIGNAL SEQUENCE ;
ENDOPLASMIC-RETICULUM MEMBRANE; NASCENT SECRETORY PROTEINS)
86-3454 003 (YEAST SACCHAROMYCES-CEREVISIAE; PROTEIN SECRETION;
ALPHA-FACTOR PHEROMONE RECEPTOR)
86-1974 001 (ORNITHINE TRANSACETYLASE DEFICIENCY; MITOCHONDRIAL
IMPORT; TARGETING PROTEINS; MAMMALIAN MITOCHONDRIA INVITRO;
MOLECULAR-CLONING OF CDNA)
86-5181 001 (N-LINKED OLIGOSACCHARIDES; SITES OF GLYCOSYLATION; HUMAN
FIBROBLAST COLLAGENASE INHIBITOR; STRUCTURAL-ANALYSIS OF THE
CARBOHYDRATE SIDE-CHAINS)

9/3,K/17 (Item 11 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.

05797558 Genuine Article#: ST805 No. References: 51

**Title: STRUCTURE AND EXPRESSION OF A COMPLEMENTARY-DNA FOR THE NUCLEAR
CODED PRECURSOR OF HUMAN MITOCHONDRIAL ORNITHINE
TRANSACETYLASE**

Author(s): HORWICH AL; FENTON WA; WILLIAMS KR; KALOUSEK F; KRAUS JP;
DOOLITTLE RF; KONIGSBERG W; ROSENBERG LE

Corporate Source: YALE UNIV, SCH MED, DEPT HUMAN GENET/NEW HAVEN//CT/06510;
YALE UNIV, SCH MED, DEPT MOLEC BIOPHYS & BIOCHEM/NEW HAVEN//CT/06510;
UNIV CALIF SAN DIEGO, DEPT CHEM/LA JOLLA//CA/92093

Journal: SCIENCE, 1984, V224, N4653, P1068-1074

Language: ENGLISH Document Type: ARTICLE

**Title: STRUCTURE AND EXPRESSION OF A COMPLEMENTARY-DNA FOR THE NUCLEAR
CODED PRECURSOR OF HUMAN MITOCHONDRIAL ORNITHINE
TRANSACETYLASE**

Research Fronts: 84-0901 001 (STRUCTURE AND SEQUENCE ARRANGEMENT OF

MITOCHONDRIAL DNA IN YEAST AND OTHER CELLS)

84-1503 001 (GENE EXPRESSION, **SIGNAL SEQUENCE** ANALYSIS, SYNTHESIS
SITE AND OTHER REGULATION FACTORS IN PROTEIN PROCESSING AND TRANSPORT
IN ESCHERICHIA-COLI...

...OF THE REGULATION OF GENE TRANSCRIPTION AND EXPRESSION)

84-4464 002 (SYNTHESIS AND TRANSPORT OF **MITOCHONDRIAL** PROTEINS IN
YEAST AND OTHER ENERGY-PRODUCING ORGANISMS)

84-4643 002 (EXPRESSION OF GENES TRANSFERRED...

?

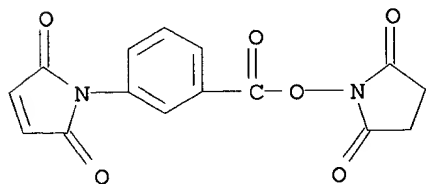
08/765244
KAT 09-16-99

=> s m()maleimido()benzoyl()n()hydroxy()succinimide()ester

120594 M
629 MALEIMIDO
332532 BENZOYL
3016943 N
2142257 HYDROXY
3105 SUCCINIMIDE
2983231 ESTER
L1 1 M(W)MALEIMIDO(W)BENZOYL(W)N(W)HYDROXY(W)SUCCINIMIDE(W)ESTER

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 1999 ACS
RN 58626-38-3 REGISTRY
CN 1H-Pyrrole-2,5-dione,
1-[3-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl
]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN m-Maleimidobenzoic acid N-hydroxysuccinimide ester
CN **m-Maleimidobenzoyl N-hydroxysuccinimide ester**
CN m-Maleimidobenzoyl-N-hydroxysuccinimide
CN Mmbs
CN N-(m-Maleimidobenzoyloxy)succinamide
CN N-(m-Maleimidobenzoyloxy)succinimide
FS 3D CONCORD
DR 64712-18-1
MF C15 H10 N2 O6
LC STN Files: AGRICOLA, AIDSLINE, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, EMBASE,
IFICDB,
IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, PROMT, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



169 REFERENCES IN FILE CA (1967 TO DATE)
35 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
170 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> file caplus

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FILE LAST UPDATED: 16 Sep 1999 (19990916/ED)

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=> s 58626-38-3

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Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L3 170 L2

=> s l2 and (cross()link? or crosslink?)

 170 L2
 293974 CROSS
 232142 LINK?
 20319 CROSS(W)LINK?
 179842 CROSSLINK?
L4 56 L2 AND (CROSS(W)LINK? OR CROSSLINK?)

=> s l4 and peptid? and nucl?

 294456 PEPTID?
 1233545 NUCL?
L5 2 L4 AND PEPTID? AND NUCL?

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 1999 ACS

AN 1994:625876 CAPLUS

DN 121:225876

TI Preparation of photoprotein conjugates and methods of use thereof

IN Stults, Nancy L.

PA Sealite Sciences, Inc., USA

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12Q001-00

ICS C12Q001-66

CC 9-14 (Biochemical Methods)

Section cross-reference(s): 2

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9418342	A1	19940818	WO 1994-US1387	19940204
	W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9461718	A1	19940829	AU 1994-61718	19940204
	EP 683822	A1	19951129	EP 1994-908734	19940204
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,				
SE	JP 08506897	T2	19960723	JP 1994-518303	19940204
	IL 108607	A1	19981206	IL 1994-108607	19940209
PRAI	US 1993-17116		19930212		
	WO 1994-US1387		19940204		
AB	The present invention encompasses a method of synthesis of conjugates of photoproteins that retain all or a substantial portion of the luminescent activity of underivatized photoprotein. According to the present invention photoproteins may be conjugated with a variety of binding reagents including streptavidin/avidin, glycoproteins, lectins, hormones, antigens, drugs, antibodies and antigen binding fragments thereof, or any other selectively bindable reagent by chem. crosslinking means. The present invention also encompasses conjugates produced by this method,				
	and methods of use of such conjugates. Aequorin was activated with 2-iminothiolane and then conjugated with sulfo-SMCC-activated monoclonal antibody to human TSH. The conjugate was used in an immunoassay for TSH.				
ST	photoprotein conjugate binding reagent prepn; aequorin antibody conjugation TSH immunoassay				
IT	Ostracoda				
	Pelagia				
	(binding reagents conjugates with bioluminescent proteins of)				
IT	Proteins, specific or class				
	RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)				
	(bioluminescent, conjugates with binding reagents; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)				
IT	Aequorins				
	RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)				
	(conjugates with binding reagents; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)				
IT	Pharmaceuticals				
	(conjugates with photoproteins; photoprotein conjugates prepn. and use				

as reagents in luminescence binding assays)

IT Agglutinins and Lectins
Antibodies
Antigens
Hormones
Ligands
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(conjugates with photoproteins; photoprotein conjugates prepn. and use
as reagents in luminescence binding assays)

IT Immunoassay
Nucleic acid hybridization
(photoprotein conjugates prepn. and use as reagents in luminescence
binding assays)

IT Aequorins
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(apo-, conjugates with binding reagents; photoprotein conjugates
prepn.
and use as reagents in luminescence binding assays)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(berovins, apo-, conjugates with binding reagents; photoprotein
conjugates prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(berovins, conjugates with binding reagents; photoprotein conjugates
prepn. and use as reagents in luminescence binding assays)

IT Avidins
Deoxyribonucleic acids
Enzymes
Glycoproteins, specific or class
Nucleic acids
Receptors
Ribonucleic acids
Peptides, preparation
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(conjugates, with photoproteins; photoprotein conjugates prepn. and
use
as reagents in luminescence binding assays)

IT Spectrochemical analysis
(luminescence, photoprotein conjugates prepn. and use as reagents in
luminescence binding assays)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(mnemiopsins, apo-, conjugates with binding reagents; photoprotein
conjugates prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(mnemiopsins, conjugates with binding reagents; photoprotein
conjugates
prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(obelins, conjugates with binding reagents; photoprotein conjugates
prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(obelins, apo-, conjugates with binding reagents; photoprotein

conjugates prepn. and use as reagents in luminescence binding assays)

IT **Nucleotides**, preparation
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (oligo-, conjugates, with photoproteins; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT Proteins, specific or class
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (photo-, conjugates with binding reagents; photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT 51-48-9, Thyroxine, analysis 9002-71-5, TSH
 RL: ANT (Analyte); ANST (Analytical study)
 (photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT 51-48-9D, Thyroxine, aequorin conjugates
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT 9013-20-1DP, Streptavidin, conjugates with photoprotein 9014-00-0DP, Luciferase, conjugates with binding reagents 96827-88-2DP, Pholasin, conjugates with binding reagents
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

IT 4856-87-5 6539-14-6, 2-Iminothiolane 6953-60-2, S-Acetylmercaptosuccinic anhydride 7803-49-8, Hydroxylamine, reactions 15209-14-0, Bis(maleimido) methyl ether 42014-51-7 55750-63-5
58626-38-3 58626-38-3D, sulfonated 64987-85-5, SMCC 68181-17-9, N-Succinimidyl-3-(2-pyridyldithio)propionate 72252-96-1 72252-96-1D, sulfonated 76931-93-6 79886-55-8 79886-55-8D, sulfonated 103708-09-4 112241-19-7
 RL: RCT (Reactant)
 (photoprotein conjugates prepn. and use as reagents in luminescence binding assays)

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 1999 ACS

AN 1990:494359 CAPLUS

DN 113:94359

TI Preparation and use of **nucleic** acid probes containing a conjugated **peptide**

IN Ramachandran, Kuzhalmannam L.; Cate, Richard L.

PA Biogen, Inc., USA

SO PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12Q001-68

CC 9-2 (Biochemical Methods)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 8912110	A1	19891214	WO 1989-US2363	19890531
	W: AU, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	US 5109124	A	19920428	US 1989-306798	19890202
	AU 8938455	A1	19900105	AU 1989-38455	19890531
	EP 440647	A1	19910814	EP 1989-907476	19890531
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 03504801	T2	19911024	JP 1989-507114	19890531
PRAI	US 1988-200930		19880601		
	US 1989-306798		19890202		
	WO 1989-US2363		19890531		
OS	MARPAT 113:94359				

5'-TTGCTGGTATATCATCTGCGTTTTTTCATG I

Lys-Tyr-Gly-Lys-Asn-Ser-Lys-Pro-Arg-Lys-Glu-Thr-Cys II

AB Polynucleotide probes are provided which have a label, e.g. a cysteine-contg. **peptide** conjugate, bearing >1 signaling moieties. The label is attached to the probe by the reaction of an amino-

and sulfhydryl-reactive heterobifunctional reagent with the probe and label; the reaction results in the oxidn. of the sulfhydryl group of the label. The label may be attached to the 5' terminus of the probe, or to modified bases of the probe. The probes constructed according to the invention are useful e.g. in detecting target sequences in DNA. The signal-contg. label may also be attached to e.g. an antibody for antigen detection. Thus, 5'-TTGCTGGTATATCATCTGCGTTTTTTCATG [I complementary to a portion of the gene coding for human tissue plasminogen activator (tPA)] was synthesized, reacted with hexamethylenediamine to aminoalkylate the 5'-hydroxyl group, and conjugated to the synthetic **peptide** label Lys-Tyr-Gly-Lys-Asn-Ser-Lys-Pro-Arg-Lys-Glu-Thr-Cys via reaction with a succinimidyl 4-(N-maleimidomethyl)cyclohexane-1-carboxylate linker. The labeled probes were biotinylated, purified and used in hybridization assays to detect DNA sequences prepd. from a tPA-contg. plasmid. When filters were washed using high-stringency conditions, 10 pg of target DNA could be detected with colorimetric detection techniques. I, which had a GC content of 37%, produced negligible background compared to other

probes

having a higher GC content. Use of the invention in labeling a monoclonal

antibody to lipocortin-1 for immunochem. lipocortin-1 detection, in polymerase chain reaction technol., and in detection of human genomic DNA sequences is also described. Use of a dioxetan deriv. as a chemiluminescent substrate for hybridization assays is disclosed. A method for isolation of DNA from a cell suspension is described.

ST **nucleic** acid hybridization probe conjugate prepn; monoclonal antibody **peptide** conjugate lipocortin detn; **peptide** conjugate **nucleic** acid hybridization probe; human tissue plasminogen activator gene probe

IT Cell

(DNA isolation from suspension of)

IT Antibodies

Antigens

Toxins

RL: ANST (Analytical study)

(antisense **nucleic** acid probe conjugates with, for cell ingestion, therapeutics in relation to)

IT Therapeutics

(antisense **nucleic** acid probe with conjugated **peptide** as agent for, of cell)

IT Deoxyribonucleic acid formation

(by polymerase chain reaction, **nucleic** acid hybridization probes with conjugated **peptide** in)

IT Gene and Genetic element, animal

RL: ANST (Analytical study)

(for tissue plasminogen activator of human, hybridization probe contg. **peptide** conjugate for)

IT Avidins

RL: SPN (Synthetic preparation); PREP (Preparation)

(in **nucleic** acid hybridization probe prepn., **peptide** conjugate in relation to)

IT Fluorescent substances

(in **nucleic acid** hybridization probe with **peptide** conjugate prepn., as signalling moiety)

IT Enzymes
Radioelements, biological studies
RL: SPN (Synthetic preparation); PREP (Preparation)
(in **nucleic acid** hybridization probe with **peptide** conjugate prepn., as signalling moiety)

IT Deoxyribonucleic acids
RL: PROC (Process)
(isolation of, from cell suspension)

IT Amino group
(**nucleic acid** probe linkage group attached to, at 5' terminus of probe)

IT Amination
(of oligonucleotide, in **nucleic acid** hybridization probe prepn.)

IT Mercapto group
(of **peptide**, in **nucleic acid** hybridization probe prepn.)

IT Deoxyribonucleic acid sequences
(of probes with conjugated **peptides**)

IT Oxidation
(of sulfhydryl group of **peptide** label, in **nucleic acid** hybridization probe prepn.)

IT **Nucleic acid** hybridization
(**peptide**-conjugated probe prepn. for)

IT Hormones
RL: ANST (Analytical study)
(**peptides**, antisense **nucleic acid** probe conjugates with, for cell ingestion, therapeutics in relation to)

IT Cell **nucleus**
(sepn. of, in DNA isolation from cell suspension)

IT Plasmid and Episome
(with human tissue plasminogen activator DNA, hybridization probe contg. **peptide** label for)

IT Reaction
(amplification, **peptide**-label contg. **nucleic acid** probe in)

IT Detergents
(anionic, in DNA isolation from cell suspension)

IT Lipocortins
RL: ANT (Analyte); ANST (Analytical study)
(annexins I, detn. of, biotinylated and **peptide**-conjugated monoclonal antibody for)

IT Luminescent substances
(chemi-, **nucleic acid** hybridization assay prodn. of, dioxetane deriv. in relation to)

IT **Peptides**, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(conjugates, with oligonucleotides, in **nucleic acid** hybridization probe prepn., cysteine residue in relation to)

IT Amines, reactions
RL: SPN (Synthetic preparation); PREP (Preparation)
(di-, oligonucleotide deriv. reaction with, in **nucleic acid** hybridization probe prepn.)

IT **Crosslinking** agents
(heterobifunctional, amino- and sulfhydryl-reactive, in **nucleic acid** hybridization probe prepn.)

IT Antibodies
RL: ANST (Analytical study)
(monoclonal, to lipocortin-1, biotinylated and **peptide**-conjugated, for lipocortin-1 detn.)

IT Detergents
(nonionic, in DNA isolation from cell suspension)

IT **Nucleotides**, polymers
RL: SPN (Synthetic preparation); PREP (Preparation)

(poly-, conjugates, with **peptides**, prepn. of, for
nucleic acid hybridization probes)

IT 58626-38-3 649-82-2 83306-17-6 128906-09- 128906-10-5
 RL: ANST (Analytical study)
 (as bifunctional linking agent, in **nucleic acid hybridization**
 probe prepn., **peptide** conjugate in relation to)

IT 128280-05-7 128280-06-8
 RL: ANST (Analytical study)
 (as polymerase chain reaction primer)

IT 128400-39-5DP, oligonucleotide conjugates
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (hybridization probe for human tissue plasminogen activator DNA,
 prepn.
 of)

IT 302-95-4 9016-45-9, NP 40 25155-30-0, Sodium dodecylbenzene sulfonate
 RL: ANST (Analytical study)
 (in DNA isolation from cell suspension)

IT 6788-84-7D, Dioxetane, derivs. 122341-56-4
 RL: ANST (Analytical study)
 (in **nucleic acid hybridization** assay, chemiluminescent
 product formation in relation to)

IT 58-85-5, Biotin 9013-20-1, Streptavidin 13395-35-2
 RL: ANST (Analytical study)
 (in **nucleic acid hybridization** probe prepn., **peptide**
 conjugate in relation to)

IT 91-64-5, Coumarin
 RL: ANST (Analytical study)
 (in **nucleic acid hybridization** probe with **peptide**
 conjugate prepn., as signalling moiety)

IT 124-09-4, 1,6-Hexanediamine, reactions
 RL: ANST (Analytical study)
 (oligonucleotide deriv. reaction with, in **nucleic acid**
 hybridization probe prepn.)

IT 530-62-1, Carbonyldiimidazole
 RL: ANST (Analytical study)
 (oligonucleotide reaction with, in **nucleic acid hybridization**
 probe prepn.)

IT 52-90-4, L-Cysteine, biological studies
 RL: BIOL (Biological study)
 (**peptide** conjugate contg. oxidized sulfhydryl group of, in
nucleic acid hybridization probe)

IT 108423-15-ODP, biotinylated conjugates 128280-10-4DP, biotinylated
peptide conjugates 128280-26-2DP, biotinylated conjugates
 128280-27-3DP, biotinylated conjugates 128280-38-6DP, biotinylated
 conjugates 128280-38-6DP, biotinylated **peptide** conjugates
 128302-12-5DP, biotinylated **peptide** conjugates
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, as hybridization probe for gene of human tissue
 plasminogen
 activator)

IT 105913-11-9, Plasminogen activator
 RL: ANST (Analytical study)
 (tissue, gene for, of human, hybridization probe contg. **peptide**
 conjugate for)